

Figure 1: Full length INSP101 (SEQ ID NO:6) versus P01241, Pituitary growth hormone (GH-N) from *H. sapiens*:

Query: 1 MATGSRTSLLLAFGLLCLPWLQEGSAFPTIPLSRLFDNAMLRAHRLHQLAFTDYQEFVSS 60
MATGSRTSLLLAFGLLCLPWLQEGSAFPTIPLSRLFDNAMLRAHRLHQLAFTDYQEF +

Sbjct: 1 MATGSRTSLLLAFGLLCLPWLQEGSAFPTIPLSRLFDNAMLRAHRLHQLAFTDYQEEEA 60

Query: 61 W-----GMESIPTPSNREETQQKSNNLELLRISLLLQSWLEPVQFLR 102
+ ESIPTPSNREETQQKSNNLELLRISLLLQSWLEPVQFLR

Sbjct: 61 YIPKEQKYSFLQNPQTSLCFSEIPTPSNREETQQKSNNLELLRISLLLQSWLEPVQFLR 120

Query: 103 SVFANSLVYGA\$DSNVYDLLKDLEEGIQTLMGRILEDGS\$RTGQIFKQTYSKFDTNSHNDD 162
SVFANSLVYGA\$DSNVYDLLKDLEEGIQTLMGRILEDGS\$RTGQIFKQTYSKFDTNSHNDD

Sbjct: 121 SVFANSLVYGA\$DSNVYDLLKDLEEGIQTLMGRILEDGS\$RTGQIFKQTYSKFDTNSHNDD 180

Query: 163 ALLKNYGLLYCFRKDM\$K\$TFLRIVQCRSVEGSCGF 199
ALLKNYGLLYCFRKDM\$K\$TFLRIVQCRSVEGSCGF

Sbjct: 181 ALLKNYGLLYCFRKDM\$K\$TFLRIVQCRSVEGSCGF 217

Figure 2: Gene Structure

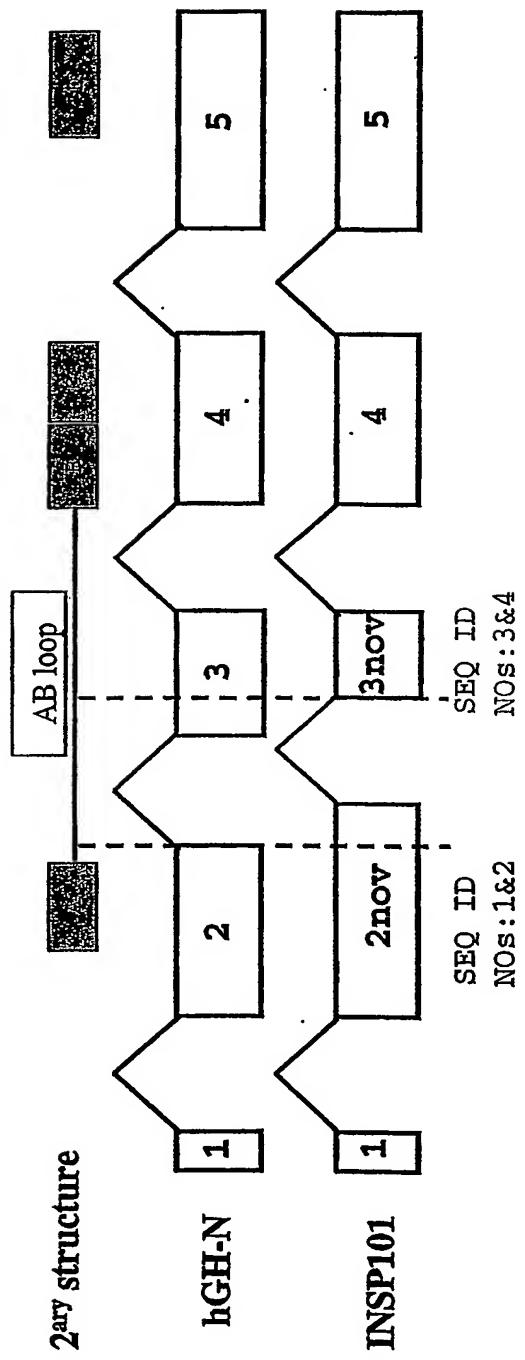


Figure 3: Predicted nucleotide sequence of INSP101 with translation. Underlined sequence denotes the predicted signal sequence

1 atggctacag gctccggac gtccctgctc ctggctttg gcctgctctg
m a t q s r t s l l l a f g l l

51 cctgccctgg cttcaagagg gcagtgcctt cccaaaccatt cccttatcca
c l p w l q e q s a f p t i p l s

101 ggcttttga caacgctatg ctccgcgccc atcgctcgca ccagctggcc
r l f d n a m l r a h r l h q l a

151 tttgacacct accaggagtt tgtaagctct tggggaatgg agtctattcc
f d t y q e f v s s w g m e s i

201 gacaccctcc aacagggagg aaacacaaca gaaatccaac ctagagctgc
p t p s n r e e t q q k s n l e l

251 tccgcacatctc cctgctgctc atccagtcgt ggctggagcc cgtgcagttc
l r i s l l l i q s w l e p v q f

301 ctcaggagtg tcttcgccaa cagcctggtg tacggcgct ctgacagcaa
l r s v f a n s l v y g a s d s

351 cgtctatgac ctcctaaagg acctagagga aggcatacaa acgctgatgg
n v y d l l k d l e e g i q t l m

401 ggaggctgga agatggcagc cccggactg ggcagatctt caagcagacc
g r l e d g s p r t g q i f k q t

451 tacagcaagt tcgacacaaa ctcacacaac gatgacgcac tactcaagaa
y s k f d t n s h n d d a l l k

501 ctacggctg ctctactgct tcaggaagga catggacaag gtcgagacat
n y g l l y c f r k d m d k v e t

551 tcctgcgcac cgtgcagtc cgctctgtgg agggcagctg tggcttc
f l r i v q c r s v e g s c g f

Figure 4: Map of plasmid pCRII-TOPO-E00974

Molecule: product2, 4563 bps DNA Circular
 File Name: 13686[1].cm5

Description: Ligation of inverted NoName into PCRII-TOPO-open

Type	Start	End	Name	Description
GENE	1	336	LacZα'	
REGION	239	256	SP6	Sp6 promoter
GENE	943	338	C Cds	Inserted cds (E00974)
REGION	949	337	C Insert	Inserted PCR product
GENE	950	1201	'LacZα	
REGION	1019	1038	T7	T7 promoter
GENE	1203	1617	f1	f1 ori
GENE	1951	2745	KanR	Kanamycin resistance gene
GENE	2763	3623	AmpR	Ampicillin resistance gene
GENE	3768	4441	pUC	pUC ori

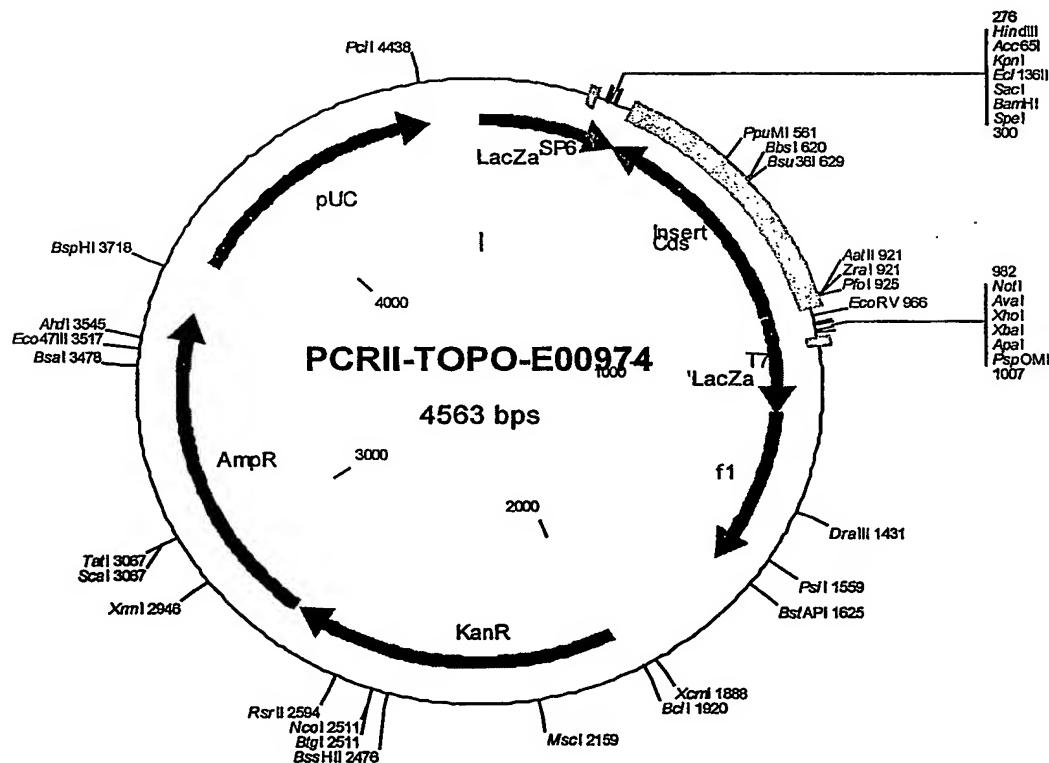


Figure 5: Alignment of INSP101 with plasmid #13686

top = INSP101
 bottom = 13686

INSP101-B1P-5'-F

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INSP101      ATGGCTACAGGCTCCGGACGTCCCTGCTCCTGGCTTTGGCTGCTCTGCCCTGG
13686      ATGGCTACAGGCTCCGGACGTCCCTGCTCCTGGCTTTGGCTGCTCTGCCCTGG

INSP101      CTTCAAGAGGGCAGTGCCTTCCAACCATTCCCTTATCCAGGCTTTGACAACGCTATG
13686      CTTCAAGAGGGCAGTGCCTTCCAACCATTCCCTTATCCAGGCTTTGACAACGCTATG
                                         → INSP101-3'-F

INSP101      CTCCCGCCCCATCGTCTGCACCAGCTGGCCTTGACACCTACCAGGAGTTTGT-----A
13686      CTCCCGCCCCATCGTCTGCACCAGCTGGCCTTGACACCTACCAGGAGTTAACCCAG
                                         ← INSP101-5'-R

INSP101      AGCTCTTGGGAAT---GGAGTCTATTCCGACACCTCCAACAGGGAGGAAACACAACAG
13686      ACCTCCCTCTGTTCTCAGAGTCTATTCCGACACCTCCAACAGGGAGGAAACACAACAG
                                         ← INSP101-5'-R

INSP101      AAATCCAACCTAGAGCTGCCAT-----ATCCAGTCGTGGCTGGAGCCC
13686      AAATCCAACCTAGAGCTGCCATCTCCCTGCTCATCCAGTCGTGGCTGGAGCCC

INSP101      GTGCAGTTCCCTCAGGAGTGTCTCGCCAACAGCCTGGTGTACGGGCCTCTGACAGCAAC
13686      GTGCAGTTCCCTCAGGAGTGTCTCGCCAACAGCCTGGTGTACGGGCCTCTGACAGCAAC

INSP101      GTCTATGACCTCCTAAAGGACCTAGAGGAAGGCATCCAAACGCTGATGGGGAGGCTGGAA
13686      GTCTATGACCTCCTAAAGGACCTAGAGGAAGGCATCCAAACGCTGATGGGGAGGCTGGAA

INSP101      GATGGCAGCCCCCGGACTGGGAGATCTCAAGCAGACCTACAGCAAGTTGACACAAAC
13686      GATGGCAGCCCCCGGACTGGGAGATCTCAAGCAGACCTACAGCAAGTTGACACAAAC

INSP101      TCACACAAACGATGACGCACTACTCAAGAACTACGGGCTGCTACTGCTTCAGGAAGGAC
13686      TCACACAAACGATGACGCACTACTCAAGAACTACGGGCTGCTACTGCTTCAGGAAGGAC

INSP101      ATGGACAAGGTCGAGACATTCCCGCATCGCAGTGCAGTGCCTCTGAGGGCAGCTGT
13686      ATGGACAAGGTCGAGACATTCCCGCATCGCAGTGCAGTGCCTCTGAGGGCAGCTGT
                                         ← INSP101-3'-R

INSP101      GGCTTC
13686      GGCTTC
                                         ←
  
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Figure 6: Nucleotide sequence and translation of cloned INSP101 product

1 acaagtttgt acaaaaaaagc aggcttcgcc accatggcta caggctcccg
m a t g s

51 gacgtccctg ctccctggctt ttggccctgct ctgcctgccc tggcttcaag
r t s l l l a f g i l c l p w l q

101 agggcagtgc cttcccaacc attcccttat ccaggcttt tgacaacgct
e g s a f p t i p l s r l f d n a

151 atgctcccgcg cccatcgctc gcaccagctg gcctttgaca cctaccagga
m l r a h r l h q l a f d t y q

201 gtttgtaagc tcttggggaa tggagttctat tccgacacacc tccaacaggg
e f v s s w g m e s i p t p s n r

251 aggaaacaca acagaaatcc aacctagagc tgctccgcattt ctcctcgctg
e e t q q k s n l e l l r i s l l

301 ctcatccagt cgtggctgga gcccgtgcag ttccctcagga gtgtcttcgc
l i q s w l e p v q f l r s v f

351 caacagcctg gtgtacggcg cctctgacag caacgtctat gacccctaa
a n s l v y g a s d s n v y d l l

401 aggacctaga ggaaggcatc caaacgctga tggggagggct ggaagatggc
k d l e e g i q t l m g r l e d g

451 agccccccgga ctgggcagat cttcaagcag acctacagca agttcgacac
s p r t g q i f k q t y s k f d

501 aaactcacac aacgatgacg cactactcaa gaactacggg ctgctctact
t n s h n d d a l l k n y g l l y

551 gcttcaggaa ggacatggac aaggtcgaga cattcctgcg catcgacag
c f r k d m d k v e t f l r i v q

601 tgccgctctg tggagggcag ctgtggcttc caccatcacc atcaccattg
c r s v e g s c g f h h h h h h

651 aaacccagct ttcttgata aagtgg
-

Figure 7: Map of pENTR-INSP101-6HIS

Molecule: pENTR-INSP101-6HIS, 3171 bps DNA Circular
 File Name: pENTR-INSP101-6HIS-V1.cm5, dated 21 Nov 2003

Description: Ligation of Blb2-orf.seq* into pDONR221*

Type	Start	End	Name	Description
REGION	295	268	C rrnB T2	transcription termination sequence
REGION	470	427	C rrnB T1	transcription termination sequence
REGION	537	552	M13F	forward primer
REGION	570	651	attL1	
GENE	677	1291	INSP101-6HIS	
REGION	1306	1394	attL2	
REGION	1452	1436	C M13 R	reverse primer
GENE	1565	2374	Kan r	
GENE	2495	3168	pUC ori	

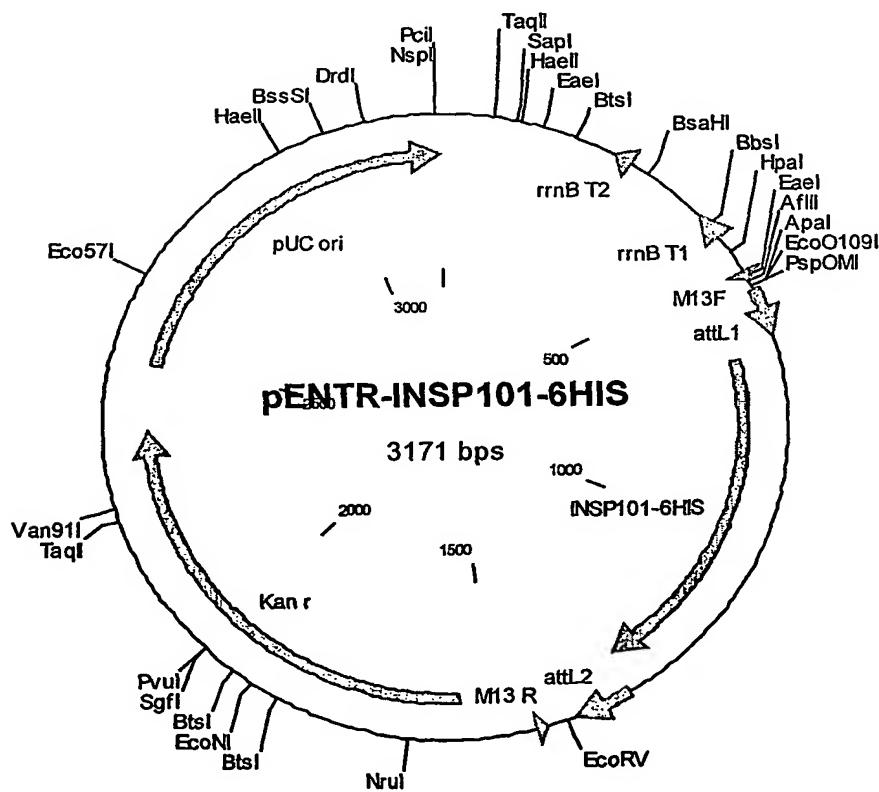


Figure 8: Map of pEAK12d-INSP101-6HIS

Molecule: pEAK12d-INSP101-6HIS-V1, 7564 bps DNA Circular
 File Name: pEAK12d-INSP101-6HIS-V1.cm5, dated 17 Jul 2003

Description: pEAK12 DES with two recombination sites attR1 and attR2 between which the cDNA is inserted

Type	Start	End	Name	Description
REGION	2	595	pmb-ori	
GENE	596	1519	Amp	
REGION	1690	2795	EF-1alpha	
REGION	2703	2722	peak12-F	forward primer
REGION	2855	2874	attB1	
GENE	2888	3502	INSP101-6HIS	
REGION	3510	3531	attB2	
REGION	3538	3966	'A	poly A/splice
REGION	3652	3633	C peak12-R	reverse primer
GENE	4585	3967	C PUR	PUROMYCIN
REGION	4809	4586	C tK	tK promoter
REGION	5304	4810	C Ori P	
GENE	7356	5304	C EBNA-1	
REGION	7357	7556	sv40	

